

## WHAT IS CLAIMED IS:

1           1. A switch capable of handling call connections between  
2 calling devices and called devices on a plurality of trunk lines  
3 associated with said switch, said switch comprising:

4           a main processing unit capable of executing call process  
5 client applications, wherein each of said call process client  
6 applications is associated with one of said call connections; and

7           N call application nodes capable of executing call  
8 process server applications, wherein a first call process server  
9 application is executed on a first one of said N call application  
10 nodes and is associated with a similar second call process server  
11 application executed on a second one of said N call application  
12 nodes separate from said first call application node, said first  
13 and second call process server applications thereby forming a first  
14 load sharing group server application,

15 wherein said each call process client application sends a call  
16 process service request to said first load sharing group server  
17 application and said first load sharing group server application  
18 selects one of said first and second call process server  
19 applications to perform said requested call process service  
20 according to a load distribution algorithm.

1           2.    The switch as set forth in Claim 1 wherein said load  
2 distribution algorithm distributes new call process services  
3 requests in an alternating manner between said first and second  
4 call process server applications.

1           3.    The switch as set forth in Claim 1 wherein said load  
2 distribution algorithm distributes new call process service  
3 requests according to a current call process load of said first  
4 call process server application and a current call process load of  
5 said second call process server application.

1           4.    The switch as set forth in Claim 3 wherein said load  
2 distribution algorithm distributes said new call process service  
3 requests in order to maintain said current call process load of  
4 said first call process server application at a level substantially  
5 equal to said current call process load of said second call process  
6 server application.

5. The switch as set forth in Claim 1 wherein said first call process server application comprises a first primary-backup group server application, wherein said first primary-backup group server application comprises a first primary call process executed on said first call application node and a first backup call process associated with said first primary call process.

6. The switch as set forth in Claim 5 wherein state information associated with said first primary call process is mirrored to said first backup call process associated with said first primary call process.

7. The switch as set forth in Claim 6 wherein said first backup call process resides on said first call application node.

8. The switch as set forth in Claim 6 wherein said first backup call process resides on a call application node separate from said first call application node.

1           9. The switch as set forth in Claim 1 wherein said second  
2 call process server application comprises a second primary-backup  
3 group server application, wherein said second primary-backup group  
4 server application comprises a second primary call process executed  
5 on said second call application node and a second backup call  
6 process associated with said second primary call process.

10. The switch as set forth in Claim 9 wherein state  
information associated with said second primary call process is  
mirrored to said second backup call process associated with said  
second primary call process.

11. The switch as set forth in Claim 10 wherein said second  
backup call process resides on said second call application node.

12. The switch as set forth in Claim 10 wherein said second  
backup call process resides on a call application node separate  
from said second call application node.

1           13. A wireless network comprising:

2           a plurality of base stations capable of communicating  
3 with a plurality of mobile stations in a coverage area of said  
4 wireless network; and

5           a mobile switching center coupled to said plurality of  
6 base stations and to a public switched telephone network by a  
7 plurality of trunk lines, wherein said mobile switching center is  
8 capable of handling call connections between calling devices and  
9 called devices on said plurality of trunk lines, said mobile  
10 switching center comprising:

11           a main processing unit capable of executing call  
12 process client applications, wherein each of said call process  
13 client applications is associated with one of said call  
14 connections; and

15           N call application nodes capable of executing call  
16 process server applications, wherein a first call process  
17 server application is executed on a first one of said N call  
18 application nodes and is associated with a similar second call  
19 process server application executed on a second one of said N  
20 call application nodes separate from said first call  
21 application node, said first and second call process server  
22 applications thereby forming a first load sharing group server

23 application, wherein said each call process client application  
24 sends a call process service request to said first load  
25 sharing group server application and said first load sharing  
26 group server application selects one of said first and second  
27 call process server applications to perform said requested  
28 call process service according to a load distribution  
29 algorithm.

14. The wireless network as set forth in Claim 13 wherein  
said load distribution algorithm distributes new call process  
services requests in an alternating manner between said first and  
second call process server applications.

15. The wireless network as set forth in Claim 13 wherein  
2 said load distribution algorithm distributes new call process  
3 service requests according to a current call process load of said  
4 first call process server application and a current call process  
5 load of said second call process server application.



1           19. The wireless network as set forth in Claim 18 wherein  
2 said first backup call process resides on said first call  
3 application node.

1           20. The wireless network as set forth in Claim 18 wherein  
2 said first backup call process resides on a call application node  
3 separate from said first call application node.

1           21. The wireless network as set forth in Claim 13 wherein  
2 said second call process server application comprises a second  
3 primary-backup group server application, wherein said second  
4 primary-backup group server application comprises a second primary  
5 call process executed on said second call application node and a  
6 second backup call process associated with said second primary call  
7 process.

1           22. The wireless network as set forth in Claim 21 wherein  
2 state information associated with said second primary call process  
3 is mirrored to said second backup call process associated with said  
4 second primary call process.



